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ABSTRACT

Described are identification procedures, a multi-dimensional screening device (MDSD), and special curriculum for gifted and talented students in Fairfax County, Virginia. Noted are discriminatory aspects of intelligence testing and teacher nomination in identifying gifted children. Described is the development of the MDSD which involves rating such talents as ability in the visual or performing arts, creativity, academic ability, leadership, and psychomotor abilities. Results of applying the MDSD are given as including the identification of more Black and other minority children as gifted than ever before. Appropriate curriculum for the gifted is thought to incorporate both enrichment and acceleration components with emphasis on interdisciplinary activities, divergent-evaluative thinking, creativity, and balance between cognitive and affective domains. (DB)

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WHAT'S SO SPECIAL ABOUT "SPECIAL" CURRICULUM FOR THE GIFTED?

Part 1. Identification Procedures

Part 2. Curriculum Design

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WHAT'S SO SPECIAL ABOUT "SPECIAL" CURRICULUM FOR THE GIFTED?

Part 1. Identification Procedures

History has a way of catching up on those who owe debts. American schools have been targeted as one of the institutions for reparations to those who have been denied access to participation in the power structure. At the feet of the schools lie the demands for redress by those who seem shut out because of the lack of educational skills. Within the sector which feels alienated from educational options are the highly talented and uniquely gifted poor, ethnic and racial groups, because they fail to be identified for special programs by the traditional measures. As a result some educators threw out all standardized measures of academic performance. In cases where this was done, there is already a movement afoot to reinstitute tests of proficiency before a diploma may be granted. Clearly a first reaction to testing resulted in the classic throwing out of the baby with the bath water.

Our challenge in gifted education is to identify gifted and talented children on instruments that supplement tests of academic ability. [1] This is not only a pragmatic guideline but fits in with the philosophical base of Guilford's Structure of Intellect Model, [2] a model which suggests multi-dimensional elements of intelligence. Those institutions which did not eliminate traditional testing to identify the gifted added the teacher checklist componant. Various checklists are instrumental in alerting teachers to performance indicators of talent in order that they may become more sensitive to the behavior of gifted/talented students in non-academic situations. However, without sufficient staff development, the teacher checklist may add little more to the teacher's diagnostic ability in detecting multidimensional characteristics of giftedness than looking at percentile scores on SRA Assessment Survey or a similar test.

Teacher judgement in the selection process of gifted/talented candidates has come in for almost as much criticism as using group tests of achievement

or group intelligence tests. Pegnato and Birch's research illustrated how unreliable teacher judgement may be.[3] Indeed, why should teachers be sophisticated in identifying the gifted/talented without any specific training in this area?

Some community groups and newspaper stories dealing with uniquely talented and gifted students tend to stress the tiresome adage that "talent will out" and that preparation in a fast paced acceleration pattern is all that we need to do for the gifted. Those students who cannot keep up must fit a Procrustean bed; in this case, the classroom designed or the testing instrument selected.

The problem of primarily finding the gifted/talented among white middle class families, the problem of relying on tests normed to white middle class children, and the problem of ommitting the poor white, the ethnically different, and racial groups from gifted identification procedures have stimulated some educators to take a few risks with the identification process.[4]

It is estimated that 3-5% of the school population is composed of gifted/talented learners.[5] Research and patience may discover these children among the less orthodox populations. How can we assist school systems to institutionalize what at first appears to be a free wheeling approach; a risk-taking approach, if you will?

In Fairfax County Public Schools, Fairfax, Virginia, the schools were mandated to establish an additional gifted/talented program to the ten year old one already existing. It was to:

a) include more representatives of the declassed population (poor whites or black, ethnic, and other racial groups)
b) be established at each of its 137 elementary and intermediate schools
c) use identification procedures which included more characteristics of intelligence and talent than the academic one.

This served as the impetus for:

a) designing a new identification procedure
b) establishing staff development among administrators and teachers to share the procedure
c) designing gifted/talented programs which would address themselves to adding to the total school program by focusing on the higher levels of thinking; intelligences that the gifted/talented have demonstrated they use very effectively when called upon to do so. 6

PURPOSE:

The basic purpose for this approach was to identify gifted and talented children with a procedure which included a new rating procedure, the Multi-Dimensional Screening Device* (MDSD) Added to this was an intensive staff development program and the establishment of a local screening committee at each school.

PRESERVICE AND INSERVICE TRAINING

Preservice training for all schools in the administration of the MDSD was provided with the assistance of a public T.V. taping into each school during an early closing. A cassette tape of this program was available for repeated showing in each school.

Inservice training was provided for teachers assigned to teach in the gifted/talented programs at local schools. These teachers acted as resource people at each school for questions about the MDSD which might develop as a result of the T.V. viewing.

Inservice training for teachers who were assigned to teach gifted/talented in schools starting programs in 1976-77 included two half day workshops for:

1) proper use of rating scale
2) proper use of MDSD categories
3) procedures for assisting the local screening committee in its search for additional data about the student candidate (appendix)
4) program planning for gifted/talented children
5) emphasizing strategies for tapping higher levels of divergent-evaluative thinking
6) information and analysis of conventional screening procedures of the gifted and talented

Inservice training was conducted by the Program Specialist for the gifted

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in Fairfax County Public Schools. Four area resource teachers for the gifted and talented assisted.

DESIGN AND IMPLEMENTATION OF THE MDSD

A procedure (MDSD) was developed which rated all children in grades 2-7 in Fairfax County Public Schools on ten talents:

I	Ability in the visual arts
II	Ability in the performing arts
III	Demonstrated creative or productive thinking
IV	Academic ability in a particular discipline
V	General intellectual ability at or above 1 outof 100 range
VI	Leadership qualities; organizing; decision making
VII	Psychomotor history and abilities
VIII	History and use of spatial and abstract thinking
IX	High discrepancy between performance and general intellectual ability
X	Talent associated with the child's cultural heritage

Teachers were instructed how to rate all children on this instrument on a scale of 1-7, 7 being the highest and 4 being the mode. Children were rated in relation to the children in their own classroom on each of 10 talents and had to be looked at for each talent. The scores were then computed by the principal. He/she selected a combination developed in a formula (see appendix) which would eventually yield 3-5% of the school population. A selection of youngsters who rated a combination of scores on four talents became candidates for the new school based programs. Additional screening was conducted through the formation of a local screening committee whose obligation was to substantiate the selection of children for the school based programs. The local screening committee at each school could request additional information from teachers explicating their ratings of the children. Such a teacher checklist and form letter request may be found in the appendix.

The MDSD is part of an identification procedure for gifted and talented children which may be used effectively, cheaply and efficiently in other school systems providing that staff development for use of the instrument

is included. The flow chart illustrates the steps of the procedure.

INSTRUCTIONS FOR SCREENING

STUDENTS FOR

GIFTED AND TALENTED PROGRAMS

STEP 1: Staff development

STEP 2: Each teacher rates every child in class on MDSD

STEP 3: Class Rating Form submitted to Principal

STEP 4: Simplified Scoring Sheet used to select potential g/t candidate

STEP 5: Pupil Data Form
Pupil Questionnaire
Parent Questionnaire
filled out for those pupils with initial criteria score of 140 or 4 highest ratings

STEP 6: Local Screening Committee meets.
Evaluates:
Pupil Data Form
Pupil Questionnaire
Parent Questionnaire
Teacher Information Form filled out as needed.

STEP 7: Local Screening Committee selects children either for further individual testing or placement into a g/t program without further testing.

RESULTS OF FIRST SCREENING 1974-

The implications of the first year's screening showed:

1) For some schools this was the first time in ten years that nominations to gifted programs were made.

2) More boys than girls were candidates as a result of the initial screening with the MDSD. This runs counter to the review of literature on teacher nominations.

3) More blacks and other minorities were recommended for gifted/talented programs than ever before in the history of gifted/talented programs in Fairfax County Public Schools.

4) Summer workshops, mini-versity staff development, year long cumulative workshops produced an "espirit de corps" among conventional teachers for gifted/talented programs in an unprecedented level of commitment. Evidence of this was derived from evaluating the teacher responses to workshops.

5) Even those children who didn't score the appropriate combination of points on four talents were perceived by teachers in a different light. Real individualized educational programming could be planned from class to class because children with 1 or 2 talents, not eligible for gifted/talented programs had their newly revealed talents emphasized in regular classrooms.

DATA RELATED TO THE FIRST YEAR'S SCREENING: [7]

As shown in Table I, four thousand, four hundred and sixteen (4,416) students in grades 3-8 participated in either a school based or center program * for gifted and talented students in 1975-76. This represented 7% of all Fairfax County Public Schools students enrolled in grades 3-8. Two thousand three hundred and thirteen (2,313) students participated in 86 elementary school based programs which represented 8.1% of the students in grades 3-6 in the participating schools and one thousand, one hundred and eighty-six (1,186) participated in 19 school based intermediate programs which represented 5.8% of the 7th and 8th grades in the participating schools. Nine (9) intermediate schools offered an 8th grade program and nineteen (19) offered a 7th grade program. Five hundred and four (504) students attended an elementary center program, an increase of 43 students or 10% from 1974-75. Four hundred and thirteen (413) attended an intermediate center program, a decrease of 18 students or 4% fewer than 1974-75.

PROGRAM

	School-Based				Center				
	Elementary		Intermediate		Elementary		Intermediate		
Area	No. Schools	No. Students	No. Schools	No. Students	No. Centers	No. Students	No. Centers	No. Students	Total Students
I	17	464	4	186	1	135	2	135	920
II	19	545	4	335	1	89	2	65	1034
III	29	860	5	293	1	125	2	113	1391
IV	21	444	6	372	2	155	2	110	1071
Total	86	2313	19	1186	5	504	8	413	4416

* A center program is one where individually Stanford Binet tested students who score 140+ are placed in an all day program. Center programs have been in Fairfax County Public Schools for over ten years.

Table 2 (below) indicates the number of student selected for the 1975-76 Program for G/T at each grade level 3 through 8. It is noted that more students have been identified at the 5th, 6th, and 7th grade levels than at the 3rd and 4th grade levels. This suggests the need to continue to emphasize early identification.

TABLE 2

Number of Students participating in the Program for the Gifted and Talented, 1975-76 according to Program and Grade Levels 3-8

PROGRAM

		School-Based	Center	Total
Grade Level	3	535	115	650
	4	528	102	630
	5	625	131	756
	6	625	156	781
	7	889	204	1093
	8	297	209	506
	Total	3499	917	4416

As indicated in Table 3 (below) 2053 female and 2363 male students were identified and selected.

TABLE 3

Number of students participating in the Program for the Gifted and Talented, 1975-76 according to program and sex

PROGRAM

	School-Based		Center		
	Elementary	Intermediate	Elementary	Intermediate	Total
Female	1037	582	251	183	2053
Male	1276	604	253	230	2363
Total	2313	1186	504	413	4416

Table 4 indicates the students participating in G/T programs according to race. For convenience of reporting, the designations were grouped according to Black, White, and Other (Spanish surnamed, American Indian, Oriental).

TABLE 4

Number of Students Participating in the Program for Gifted and Talented, 1975-76 according to Program and Race

PROGRAM

	School-Based		Center		
	Elementary	Intermediate	Elementary	Intermediate	Total
* Black	42	26	1	0	69
White	2208	1139	494	408	4249
** Other	63	21	9	5	98
Total	2313	1186	504	413	4416

* It should be noted that Fairfax County Public Schools has about 2% black population and the MDSD corresponded positively in finding these youngsters.

** Includes: Spanish surnamed, American Indian, Oriental

WHAT IS TO BE DONE?

For 1975-76 the screening of all second graders was completed on the MDSD. Those who have 4 highest talents will be considered for one of two programs depending on the subsequent data and assessment of the local screening committee. When all the data is collected and evaluated we will try to determine:

1) What is the clustering of talents if indeed there are clusters?
2) How do each of the ten talents relate to academic achievement?
3) How is teacher judgement affected by use of the MDSD?
4) What is the reliability and validity of the MDSD?
5) Is there a relationship between youngsters rated on 4 highest talents and socio-economic region factors?

If we have developed an initial screening procedure which locates gifted/talented youngsters in racial, ethnic and socio-economic groups then it may be a useful tool for other school systems to use in their gifted/talented identification procedures.

If teacher judgement, through staff development and the continued use of the (MDSD) instrument, may be improved then we have added a more systematized component to the teacher checklist approach. This also may mark a departure from characterizing teachers as poor diagnosticians of the gifted/talented.

WHAT'S SO SPECIAL ABOUT "SPECIAL" CURRICULUM FOR THE GIFTED?

Part 2. Curriculum Design

WHAT'S SO SPECIAL ABOUT "SPECIAL" CURRICULUM FOR THE GIFTED?

One assumption about gifted and talented learners is that their intelligence is multidimensional and includes many more talents than are typically measured on a standard individual IQ test like the Stanford Binet. It is therefore necessary to focus on teaching practices that encourages the learner to reveal these alleged intelligences.

James Gallagher suggests in his new edition of Teaching the Gifted Child that ordinary skills lessons and concentrated cognitive objectives for learners fails to tap their multidimensional talents. Therefore a concentrated use of classroom strategies which include problems beginning with "who, what, when, how," cognitive memory stimulators, mutes the very talents that the gifted seem most endowed with, divergent and evaluative thinking abilities. The Guilford Structure of Intellect Model suggests that children have many more talents, intelligences, or aptitudes than what is usually revealed by the standard tools of testing. Operating on this impressionistic hypothesis teachers who use other strategies than cognitive or convergent thinking ones, tend to substantiate what the Guilford model suggests. However, teachers sometimes focus their curriculum planning on gifted and talented children who have a phenomenal memory. Such children storage and retrieve all kinds of irrelevant data and consequently perform in school in a flamboyant and facile manner. Teachers are easily impressed and assume that all gifted and talented students are so motivated and proceed to plan curriculum in a vertical direction or what is commonly known as an accelerated curriculum. For

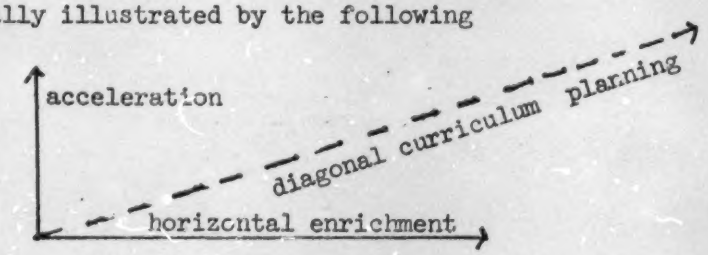
example a 4th grade child gets 7th grade spelling; 6th grade math; 9th grade literature. Is this what will appropriately tap the thinking abilities that research [8] identifies as higher thinking abilities? Will this kind of curriculum assist teachers in diagnosing the possible 114 intelligences of the 120 that Guilford's model suggests exist? Curriculum which simply accelerates avoids the real issue regarding a differentiated curriculum for gifted and talented students. What results from acceleration is more of the same, more information storaged. What is avoided is a critical way of assessing information in order that unique discoveries and problems may be uncovered about old data.

Another assumption that may fairly be made of the gifted and talented is that they typically can master the standard curriculum in 1/3 the time other children take. This permits teachers to toy with the curricula they would select to teach in the remaining 2/3 of the school year. Some schools opt to accelerate as described above.

Still others believe that by enriching the existing curriculum they will be creating a differentiated curriculum for the gifted. However, what this usually results in is milking a subject to death. That is to say, not only is the Civil War studied but each general's wife and grandparents are researched too. The euphemism given to this type of curriculum development is horizontal enrichment. What it actually suggests is that any trivia is worth studying as long as (1) you don't invade the next grade level's academic domain and (2) you select topics that are extensions of the given grade level material to be mastered.

However, there is an alternative to acceleration or horizontal

enrichment in developing appropriate curricula for the gifted/talented. It is suggested that differentiated curricula for the gifted and talented be developed on a diagonal vector. Essentially the alternative should incorporate the principals of the Guilford structure of intellect, Paul Torrance and Frank Barron's guidelines for creativity and Frank Williams' [9] strategies for the cognitive and affective domains of the higher levels of thinking. This could be graphically illustrated by the following



There are four criteria by which programs developed in a diagonal direction for gifted and talented children may be evaluated with regard to how different they are from the usual fare students are required to study. The questions which should be posed are:

1. Does the theme of the gifted/talented curriculum cover more than one discipline?
2. Are the problems designed to promote divergent-evaluative thinking?
3. Will the student activities and problem solving experiences encourage hidden talent to be revealed?
4. Are the activities balanced between the academic and creative; cognitive and affective domains?

With regard to the first criterion, selecting a theme which includes more than one discipline, it is recommended that this would help gifted students to appreciate the inter-connections of world knowledge. A theme is best when it reflects the teacher expertise in a discipline and incorporates a domain he/she normally has little or no time to include in a typical curriculum. Some teachers are Mozart buffs. They must also learn how to be Jerome Bruner buffs in order that they may select a theme which includes a large idea, respects the stage of learning a child is at for the selected discipline, and recognize the spiral possibilities of the theme. Bruner's theories in Process of Education as well as Toward a Theory of Instruction are essential to apply to current planning in a gifted curriculum. The theme should be elastic and rich enough for a learner to study one aspect, for example, at the concrete operational stage and another aspect at the formal operations stage.

Some examples of themes teachers have developed along this line of thinking are: [10]

They Cast Long Shadows (American Indian Prose and Poetry)
8th grade Literature-Mythology-History

Elementary, My Dear Watson or How To Win An Argument
7th grade Mathematics-Logic-Music

Kitchens: A Crystal Ball To People's Life Styles
4-5th grade Anthropology-History-Art

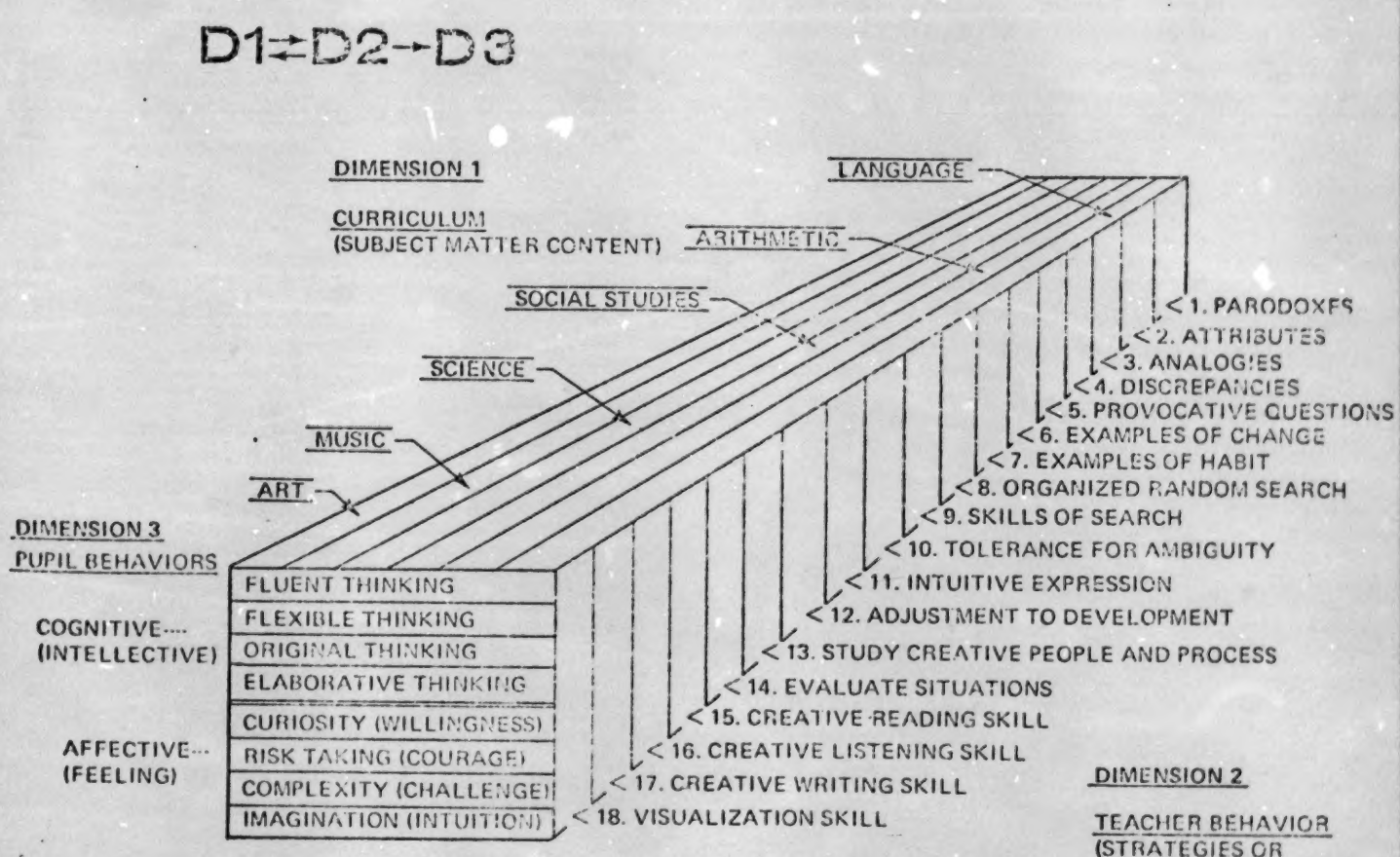
If You Could Develop A Sixth Sense, What Would It Be?
4th grade Anatomy-Biology-Music-Art

Each thematic program was chosen by a teacher [11] who had long felt that

a specific curriculum area within the regular curricula was simply glossed over and had rich possibilities for being multidisciplinary. The theme could also be taught in such a way that the learner's stage of learning (Piaget) could be respected. Finally the theme was profound enough to stimulate meaningful divergent-evaluative problems and questions to assist learners in discovering some of their hidden potential.

The second criterion is a key part of implementing the Guilford model. Frank William's diagram which follows illustrates the number of strategies a teacher may use to tap the cognitive levels which will most help reveal the learners' less used thinking potential.

A Model for Implementing Cognitive-Affective Behaviors in the Classroom



DIMENSION 2
Teacher Behaviors
(Strategies)

NO. 1 – PARADOXES	Common notion not necessarily true in fact Self-contradictory statement or observation
NO. 2 – ATTRIBUTES	Inherent properties Conventional symbols or identities Ascribing qualities
NO. 3 – ANALOGIES	Situations of likeness Similarities between things Comparing one thing to another
NO. 4 – DISCREPANCIES	Gaps of limitations in knowledge Missing links in information What is not known
NO. 5. – PROVOCATIVE QUESTIONS	Inquiry to bring forth meaning Incite knowledge exploration Summons to discovering new knowledge
NO. 6 – EXAMPLES OF CHANGE	Demonstrate the dynamics of things Provide opportunities for making alterations, modifications, or substitutions
NO. 7 – EXAMPLES OF HABIT	Effects of habit-bound thinking Building sensitivity against regidity in ideas and well-tried ways.
NO. 8 – ORGANIZED RANDOM SEARCH	Using a familiar structure to go at random to build another structure An example from which new approaches occur at random.
NO. 9 – SKILLS OF SEARCH	Search for ways something has been done before (historical search) Search for the current status of something (descriptive search) Set up an experimental situation and search for what happens (experimental research)
NO. 10 – TOLERANCE FOR AMBITGUITY	Provide situations which puzzle, intrigue, or challenge thinking Pose open-ended situations which do not force closure
NO. 11 – INTUITIVE EXPRESSION	Feeling about things through all the senses Skill of expressing emotion Be sensitive to inward hunches or nudges
NO. 12 – ADJUSTMENT TO DEVELOPMENT	Learn from mistakes or failures Develop from rather than adjust to something Developing many options or possibilities
NO. 13 – STUDY CREATIVE PEOPLE AND PROCESS	Analyze traits of eminently creative people Study processes which lead to problemsolving, invention, incubation, and insight
NO. 14 – EVALUATE SITUATIONS	Deciding upon possibilities by their consequences and implications Check or verify ideas and guesses against the facts
NO. 15 – CREATIVE READING SKILL	Develop a mind-set for using information that is read Learning the skill of generating ideas by reading
NO. 16 – CREATIVE LISTENING SKILL	Learning the skill of generating ideas by listening Listen for information allowing one thing to lead to another
NO. 17 – CREATIVE WRITING SKILL	Learning the skill of communicating ideas in writing Learning the skill of generating ideas through writing
NO. 18 – VISUALIZATION SKILL	Express ideas in visual forms Illustrating thoughts and feelings Describing experiences through illustrations

Essentially divergent-evaluative thinking is tapped with questions that begin like: "suppose that, what if, pretend that, support the belief that." Illustrations of this criterion from each of the themes cited previously are given below:

> They Cast Long Shadows:
> Question: "How is Longfellow's Hiawatha like a modern hitch-hiker?" (#3) *
>
> Elementary, My Dear Watson Or How To Win An Argument
> "Examples of true-false statements are explored. Problems: What if a sentence is neither true or false? Students compose true, false and open statements." (#6. #7)
>
> Kitchens: A Crystal Ball To People's Life Styles
> "Children examine a display of implements. They are to determine common attributes and differences. (#2) They group the 'sets'. 'What made you decide what room of a house these came from? Which of these would you find in a kitchen no matter how far back into man's history you went? What substitutes could be used? If you were a curator where would you place the following: pictures or replicas of stone age artifacts.' (#8) Teacher emphasizes guessing, soon followed by research to substantiate the hunch." (#10)

To meet the objectives of the third criterion the curriculum would have to provide opportunities to reveal students' abilities in the performing arts, poetry, painting, sculpture, etc. The gifted and talented youngsters whose abundant talent lies in a classic non-academic area seldom have a chance to reveal this spark in classes where the curriculum fails to provide opportunity. Conscious planning addressed to the Arts as a singular discipline, not as an adjunct of Social Studies or Science, has to be structured or hidden talents are not revealed. An illustration of this is Stanley Kubrick and Gordon Parks who revealed their latent talents when a camera was put into their hands long after they had rejected school. They were recognized for their hidden talent, cinematography and

* See Williams' Strategies

photography in later life, by all, but their school teachers.

The fourth criterion, the balance between academic and creative classroom activity is intimately related to a conceptual understanding of creativity. Too frequently creativity is seen as a phenomena separated from an academic concern. That is, a student paints, composes, sculpts, invents machines or a student analyzes, synthesizes, transposes, interprets, evaluates an algebraic algorism or historical premise; but the student doesn't engage in both. Consequently curricula which emphasize creative activities for the gifted seems to rely on the spontaneous generation by the student to a non-academic concern. Yet creative people respond to something and their creativity lies in their unique response to an old way of doing things. Academia need not be separated from creativity, yet many teachers believe that academic priorities will stifle creativity.

Teachers who plan curriculum for the creatively gifted sometimes fail to distinguish between gimmicks and strategies. The former are attractive, packaged techniques for getting single responses. They need not have a relation to the over all content of a child's curriculum. Strategies on the other hand are bite-size steps in cultivating a desired mode of thinking about a curriculum problem. For example when a teacher asks "If you were an ant, what would be big to you? If you were an elephant what would be big to you?" [12] It would be a gimmick if the teacher concluded the lesson with the childrens' responses and shifted to spelling. However, if this were part of a study of optical illusion or relativity or value systems then these provocative questions would be strategies.

To meet the objective of the 4th criterion, curriculum planners have

to address themselves vigorously to creative experiences but this does not mean excluding problems of history, philisophy or the origin of life. Surely, a person has to be creative about something and the more varied and multi-disciplinary a curriculum is, the more areas a creative learner has to demonstrate his/her creativity.

In conclusion, differentiated curriculum for gifted and talented children should focus on both the academic and creative aspects of learning. Utilizing various strategies to tap cognitive operations assists curriculum planners in stimulating the strengths of the gifted and talented. Planning longitudinal thematic units of study suggests to the multitalented learner that process and content are unified. The teacher needs to practice Frank Williams' strategies with the learners so that they may flex their thinking muscles, but sooner or later they have to think divergently about something which takes time to solve.

Differentiated curriculum for gifted and talented children can be developed which incorporates the best features of vertical and horizontal enrichment by applying the four criterion objectives described in a diagonal direction.

FOOTNOTES

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Frank Barron, Creative Person and Creative Process, New York, Holt, 1969.

Frank Williams, Classroom Ideas for Encouraging Thinking and Feeling, Buffalo, N.Y. D.O.K. Pub., 1970.

10. From themes developed by Fairfax County Public Schools teachers in a Summer Workshop On A Gifted Curriculum. 1973. (see footnote 11)

11. They Cast Long Shadows by Margo Brown.
Elementary, My Dear Watson Or How To Win An Argument by Sheryl Blair.
Kitchens: A Crystal Ball To People's Life Styles by Charlotte Oliver.
If You Could Develop A Sixth Sense, What Would It Be? by Ann Herb

12. Frank Williams, Ibid, p. 96.